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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,090	07/24/2003	Veronica A. Nelson	10019850 -1	3156
22879	7590	05/31/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			VO, ANH T N	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

**Office Action Summary**

Application No.

10/627,090

Applicant(s)

NELSON, VERONICA A.

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/23/2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,7-14,21-30 and 32-37 is/are pending in the application.
- 4a) Of the above claim(s) 21-29 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5,7,30 and 32-37 is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***FINAL REJECTION***

***Response to Applicant's Amendment***

***Claims 21-29 have been withdrawn consideration.***

***CLAIM REJECTIONS***

***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-14 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Childers et al. (US Pat. 5,992,990) in view of Noolandi et al. (US Pat. 6,416,156) and further in view of Du et al. (US Pat. 6,705,699).

Childers et al. disclose in Figures 1, 5 and 7 an ink delivery system comprising ink cartridges (18), each of the ink cartridge having a set of firing nozzles (60) configured to eject a fluid type (black ink, yellow ink, magenta ink, cyan ink), and wherein fluid is supplied to the first set (60) of firing nozzles along a first fluid supply path (72) and wherein individual nozzles of the first set of firing nozzles define a minimum dimension of the first fluid supply path (72), and wherein fluid is supplied to the second different set of firing nozzles (60) along a second fluid supply path (73) and wherein individual nozzles of the second set of firing nozzles define a minimum dimension of the second fluid supply path (73) (Figure 7)

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However, Childers et al. do not disclose each set of firing nozzles having the diameter of less than about 25 micron and/or more than about 25 micron and/or of a range of about 10 to about 25 microns and/or of about 12 microns and/or of about 50 to about 100 microns and/or of the same orifice layer and/or different orifice layer.

Nevertheless, Noolandi et al. disclose in Figures 2 and 33 a marking apparatus comprising:

- one or more print cartridges (28C, 28M, 28Y, 28K) configured to selectively eject generally fluidic material onto a media (38);
- wherein at least one print cartridge of the one or more print cartridges (28C, 28M, 28Y, 28K) is configured to eject a first generally fluidic material comprising a slurried suspension (column 3, lines 36-63); and
- firing nozzles a diameter that are in a range of less than about 25 micron and/or more than about 25 micron and/or of a range of about 10 to about 25 microns and/or of about 12 microns and/or of about 50 to about 100 microns (column 3, lines 15-17).

Furthermore, Du et al. disclose in Figures 4-5 a color print cartridge comprising each set of nozzles having the same orifice layer and/or different orifice layer (column 6, lines 44-47).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Noolandi et al and Du et al. et in the Childers et al. ink delivery system for the purpose of improving image solution.

### ***Response to Applicant's Arguments***

The applicant's arguments with respect to the prior art rejection have been carefully considered but not persuasive because the claims were amended because the new limitations were added to claim 8 still readable on the Childers et al. reference (US Pat. 5,992,990) as discussed above.

***Allowable Subject Matter***

Claims 1-5, 7, 30 are allowable.


Claims 32-37 would be allowable. These claims are allowable over prior art of record because the prior art does not disclose a printing device comprising at least one print cartridge configured to eject a second generally fluidic material comprising solar cell conditioning agents in the combination as claimed.

***CONCLUSION***

**THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M..

The fax number of this Group 2800 is (703) 872-9306.

  
**ANH TIN VO**  
**PRIMARY EXAMINER**

May 26, 2005